Up close and personal
This is the close-up your dentist can only dream of – a prize-winning image of a section through the root of the first molar tooth. Entered by Monash University histologist Mr Ian Boundy, the photograph was the overall winner in the Image of the Year 2000 competition sponsored by AMRAD Corporation and rodar's Life Science.

The photograph shows the central pulp cavity containing neurovascular structures and connective tissue. Enclosing the pulp is the hard dentine, made up of tiny radiating dentinal tubules of mineralised material that continue to be deposited throughout the life of the tooth.

Support gained for new super mouse house
Mouseworks has arrived at Monash University. The Wellcome Trust has awarded a large equipment grant of $619,000 to provide equipment for the new Monash Mouseworks facility, currently being completed on the Clayton campus. Monash Mouseworks will produce and breed genetically modified mice for use by researchers at Monash and Deakin universities.

Opinion
Pacific policy lacks depth
Australia must listen to the full spectrum of indigenous views if democracy is to have a future in the Pacific, argues a Monash academic.

Arts
Men have their problems, too
A Monash masters student explores themes of men's isolation and alienation in a sculptural exhibition being held at the Caulfield campus this month.

Courts' power threatens rights
The ability of Australian courts to overturn decisions made by administrative tribunals represents a serious threat to individual rights, says Monash PhD law researcher Ms Carol Foley.

According to Ms Foley, the courts' intervention in these cases is (inappropriately) inappropriate and based on technicality, ironically jeopardising, not enhancing, the rights of the complainant.

"Administrative law was brought in during the 1970s partly to protect individuals against closed-book style bureaucratic decision-making. It operates today in diverse areas such as human rights, superannuation and native title," she says.

"Administrative tribunals employ specialists who have expertise in a particular area. They benefit the individual because they are user and cost-friendly, process cases faster and look at a case on its merits."

"However, if a tribunal's powers are categorised by the courts as judicial, its jurisdiction may be impugned – with horrendous consequences, because not only will all previous decisions made by that tribunal be wiped out, but also the individual must then go to court to get a decision. Many people don't have the money to do that."

According to Ms Foley, judicial independence was established under the separation of powers doctrine to protect the rights of the individual against the power of the executive and parliament.

"However, the courts often use the doctrine just because it is there - without looking at the actual case to determine if a person's rights are being infringed by the tribunal's ruling, and without looking at how the system is being affected.

"The separation of powers doctrine has great merit and should have a place in Australian constitutional law, but we need to rethink the nature of its parameters and application."

To solve the problem, Ms Foley is investigating the applicability of an alternative institutional model of the doctrine that focuses on a separation of functions rather than a separation of functions.

"An institutional separation of powers means you wouldn't have to worry about what is and isn't judicial adjudication, because you achieve the same ends – protecting the judiciary, and the individual – but from a different focus.

"We should be focusing on the practical outcome in particular cases in order to safeguard the rights of individuals rather than just applying a universal formula.

"The practice of law should always be pragmatic – to achieve the dual ends of social order and individual justice," she says.

Introduction
News
Ancient Egypt comes alive
A Monash researcher is constructing virtual models of Ancient Egyptian temples and tombs to show how they may have looked thousands of years ago.

News
Funnel-web meets its match
Neurotoxins found in the venom of the eastern mouse spider are similar to the funnel-web's, Monash researchers claim.

Opinion
Pacific policy lacks depth
Australia must listen to the full spectrum of indigenous views if democracy is to have a future in the Pacific, argues a Monash academic.

Arts
Men have their problems, too
A Monash masters student explores themes of men's isolation and alienation in a sculptural exhibition being held at the Caulfield campus this month.
Family businesses becoming more professional: research

BY SANDA BUCOVAC

Adult children involved in established family businesses across Australia are more upfront about where their future lies within the enterprise.

They are more focused than their parents on the selection of a successor and maintaining ownership control within the family, according to recent findings of a family business succession survey conducted by Monash's AXA Australian Family Business Research Unit and the Australian Society of Certified Practising Accountants.

More than 70 per cent of the emerging generation of prospective successors surveyed were under 40 years of age, and 58 per cent had tertiary qualifications compared with 44 per cent of their parent owners.

The survey showed that owners and adult children agreed that balancing short- and long-term business decisions and preparing and training a successor were the most important successor issues.

The next most important issue for the owner was maintaining loyalty to non-family managers, balancing family concerns and business interests, and developing relationships between successor(s) and non-family employees. Adult children were more concerned with selection of the successor and maintaining family control.

Prospective successor Mr David Owens, from Oakvale Wines in the Hauzer Valley, believed the rankings reflected owners' maturity in terms of a more balanced and holistic view of how businesses operate within a community.

"Prospective successors have a more hard-nosed view because they want to protect the interests of the business which are so closely aligned to their personal interests," said Mr. Owens, who is a fourth-generation member of the parent company BOI Investment.

Mrs Margaret James, co-owner of River Sands sand quarry and manufacturing company in Queensland, sympathised with adult children. "For adult children, it is very important to know who is going to be the successor. However, it is very difficult when, in our case, we have two adult sons and a son-in-law," said Mrs James, whose company is part of the giant family-owned Neumann construction and development group based on the Gold Coast.

According to her son Robert, the sales manager at River Sands, there had to be "a path laid out", particularly when adult children dedicated themselves to the business without ownership.

In terms of the most important attributes of successors, respondents contacted agreed that personality traits, current involvement with the business and level of competence were more important than family standing issues such as gender and age.

Support gained for new super mouse house

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The Age are proud supporters of Monash University,
**Computer models bring Ancient Egypt back to life**

**BY FIONA PERRY**

A Monash archaeology researcher is bringing Ancient Egyptian buildings back to life using computer modelling techniques to show how temples and tombs would have looked thousands of years ago.

PhD student Ms Caroline McGregor used computer modelling and animation software to painstakingly reconstruct the Temple of Tutu, an elaborately decorated temple in the Dakhleh Oasis at Iman't el-Kharab, 800 kilometres southwest of Cairo.

The Temple of Tutu, a temple decorated in a combination of Pharonic and Classical styles, was largely dismantled in antiquity. It was the only temple in Egypt dedicated to the god Tutu, also known as the 'master of demons'.

The Dakhleh Oasis has been inhabited since prehistoric times and the ancient city of Iman't el-Kharab has been the site of ongoing archaeological excavations by a Monash team since 1996.

Ms McGregor, who has under-graduate qualifications in computer science and archaeology, has constructed a three-dimensional virtual model of the temple as it may have looked in the fourth century CE (AD).

A three-minute virtual tour takes visitors through the temple’s main gates, through a colonnaded court, past shrines and into the majestic inner temple, allowing for close inspection of the intricate floral and geometric patterns decorating the walls.

The reconstruction of the temple is an ongoing process, with new discoveries in the area allowing for the continuing development of the virtual model, said Ms McGregor.

“The beauty of a virtual model is that it’s a non-intrusive, dynamic way of ‘restoring’ the temple. I can show this reconstruction of the temple’s development over time, and test theories of what it would have looked like at different points. It’s a constantly evolving project,”

Ms McGregor’s model displays the temple’s array of foreign influences, including styles popular during the Roman empire, which can be seen in stone tombs on the approaches to Rome.

Her next project is to turn the three-minute virtual guided tour into a full virtual reality experience, where visitors will be able to orient themselves and explore freely inside the temple.

She is also working on a virtual reconstruction of ancient tombs that are located on the site of the temple.

“My ultimate aim is to model the major monuments of the site, so that people can get an idea of how it would have felt to walk down the main street of an Ancient Egyptian city,” she said.

The temple reconstruction can be viewed at www.arts.monash.edu.au/archaeology/Temple.html.

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**Exciting find in ancient Kellis**

Earlier this year, in a cemetery in Kellis, not far from the ruins of the Temple of Tutu, a team of Australian archaeologists headed by Monash Egyptologist Dr Colin Hope made an exciting discovery.

Buried 20 to 30 centimetres below the surface of an area the archaeologists had been walking over for 20 years was an “oinochos” or single-handled glass vessel painted with scenes of gladiatorial combat, dating from the second or third century CE (AD).

According to Dr Hope, director of Monash’s Centre for Archaeology and Ancient History, the vessel is an important find, as it is probably the only one of its type in existence with fully preserved gladiatorial scenes.

“This vessel would have been used to hold expensive perfumes in the household of a wealthy person living in the village. It would have been highly prestigious,” he said.

Dr Hope said the vessel was probably made in Alexandria, where gladiatorial contests were held during Roman times, and where archaeologists recently unearthed ancient shipwrecks, palaces and pieces from the Pharos, the famous lighthouse of Alexandria.

He will discuss the find at an international conference of archaeologists working in the Dakhleh project to be held at Monash from 9 to 13 August. For more information on the conference, contact Dr Colin Hope at colin.hope@arts.monash.edu.au.

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**Out of control and loving it – all in the name of science**

**BY KAY AREWELL**

Francesca Collins had an unusual dilemma – how could she terrify people without scaring them into a heart attack? In the interests of science, of course.

As part of her PhD in psychological medicine at Monash University, Ms Collins found herself at St Kilda’s Luna Park, back to life, as it were, about to board the Mad Mouse – an experience guaranteed to make participants feel out of control.

Ms Collins was studying their dissociative response to the way they were suddenly thrown off an uncomfortable situation.

According to Ms Collins, “normal” people dissociate when faced with any-thing from extreme pain to fear, or even just boredom. Even being absorbed in a task is a type of dissociation, she says.

She hypothesises that a dissociative state can also be prompted by positive experiences if the situation involves a high level of arousal and uncontrollability, like the Mad Mouse ride.

The tendency to dissociation is highly variable and linked to how much control people feel they exercise on the world around them – there are “high” dissociators and “low” dissociators and the full range in between.

Mad Mouse riders who believe they have a high level of control, for example, may respond by rationalising, telling themselves the carriage won’t run off the rails – while the “low” dissociators do not readily switch off.

Of 111 riders surveyed for their tendency to dissociate, only 17 were interviewed afterwards, based on their responses to the questionnaire.

The participants were asked how they felt when they were in the Mammoth ride, which is designed to make people feel they are riding on a rollercoaster, but are actually inside a real ride.

For “high” dissociators, the experience was positive and they were able to enjoy the ride.

For “low” dissociators, the experience was negative and they found the ride a painful and unpleasant experience.

Some people do not dissociate at all. They have a higher level of control and are able to enjoy the ride.

Ms Collins believes that people who are able to dissociate are more likely to enjoy the ride, while those who do not are more likely to have a negative experience.

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**Mouse spider venom is similar to funnel-web’s, researchers discover**

**Corey Nassau**

While the Geelong Advertiser once described the eastern mouse spider as a “Vicious beast”, and a “huntsman on steroids”, Monash University Venom Group researchers have tossed tabloid hype aside to focus on the complex venom produced by the spider.

Dr Wayne Hodgson and Mr Lachlan Rash, of Monash’s Pharmacology department, began researching the spider - melaleuca brebulon - after a bite victim had been successfully treated using funnel-web anti-venom.

Similar in appearance to the funnel-web, the mouse spider usually only one to three centimetres long, and looks aggressive with its stocky appearance, shiny black body and large fangs.

Unlike the highly localised funnel-web, the mouse spider calls much of Australia home, yet is mysteriously absent from Tasmania.

It generally lives in open woodland regions, preferring litter-free ground to dig its burrows, which are usually about 50 centimetres deep and equipped with a well-camouflaged trap door.

“We have been interested in the mouse spider because it is very similar in appearance to the funnel-web, and its distribution overlaps. People who are reported to have been bitten by a funnel-web spider, and who respond to funnel-web anti-venom, may well have been bitten by a male mouse spider,” Dr Hodgson said.

According to the researchers, the neurotoxins in the eastern mouse spi-der’s venom affect the way in which nerves send messages to the muscles, leading to spontaneous excitations which cause them to contract involun-tarily, eventually leading to muscle paralys and potentially death, if untreated.

Currently, funnel-web anti-venom is only distributed to hospitals in areas where the spider is found. If further testing shows that the neurotoxins in the mouse spider’s venom are as simi-lar to those in the funnel-web as expect-ed, then most of the hospitals in Australia would have to carry the antivenom rather than just the few that currently do, said Dr Hodgson.

The two researchers have already characterised the venom and are now working with researchers at the University of Technology in Sydney, who are isolating the toxins from the other components of the venom.

“They have done this type of work with funnel-web venoms and are cur-rently trying to chemically characterise it before we make a comparison of the two,” Mr Rash said.

“What we have shown in our research is that there is another family of neurotoxins that may eventually prove to be clinically important.”

“This is quite a find in pharmacolog-ical terms, as we suspect this is the first time a neurotoxic of this sort has been found outside of the funnel-web family,” Dr Hodgson said.

Both researchers emphasised that while the mouse spider’s venom is potentially lethal, it has caused no known fatalities.

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**Move over funnel-web: The eastern mouse spider’s venom is just as dangerous as the funnel-web’s, say researchers Mr Lachlan Rash (left) and Dr Wayne Hodgson. Photo by Greg Ford.**
Schools

Year 10 brochure

The Year 10 and Beyond – Entry to Monash University 2003 brochure will be sent to school careers coordinators early in Term 3. The brochure will be in a new and improved format, which we hope will benefit students making decisions for their VCE years.

For more information, contact Ms Sozha de Silva on (03) 9905 3167.

Campus visits

The Prospective Students Office arranges school visits to all Victorian-based campuses of Monash University at no cost to the school. These tours normally include a short talk followed by a tour of the campus, with current uni students acting as hosts. In Term 3, Year 10 groups often visit a campus to see what a university looks like and to get a feel for uni life. Other activities can also be arranged.

For more information, contact Ms Jodie Martin on (03) 9905 3152.

New courses

There will be many new courses on offer at Monash University in 2001. These include:

• Bachelor of Arts/Bachelor of Information Management and Systems – Caulfield
• Bachelor of Biomedical Science/Bachelor of Commerce – Clayton
• Bachelor of Business (Law) – Caulfield
• Bachelor of Business and Commerce – Berwick, Gippsland, Malaysia, Peninsula and South Africa
• Bachelor of Business and Commerce/Bachelor of Network Computing – Peninsula
• Bachelor of Business and Commerce/Bachelor of Sport and Outdoor Recreation – Gippsland
• Bachelor of Communication – Berwick
• Bachelor of Design (Multimedia Design) – Caulfield
• Bachelor of Education/Bachelor of Laws – Clayton
• Bachelor of Information Management and Systems/Bachelor of Education – Clayton and Caulfield
• Bachelor of Multimedia Computing – Berwick and Gippsland
• Bachelor of Nutrition and Dietetics – Caulfield
• Bachelor of Sport and Outdoor Recreation – Gippsland
• Bachelor of Telecommunications – Clayton
• Bachelor of Tourism – Berwick
• Diploma in Music – Clayton

For more information on these courses, contact the Prospective Students Office on (03) 9905 1320.

Technique could detect art fakes

BY KAREN MEHANN

On the face of it, you wouldn’t think that physics and art could have much in common. However, this unlikely alliance, fostered by Monash physicist Dr Gordon Troup, is making major advances in understanding the creation of artworks and, ultimately, in the detection of art fakes.

Dr Troup is heading a team of researchers who are collaborating with art conservation experts from Melbourne University’s Ian Potter Museum of Art and physicists from the Florence Institute di Richerche sulle Onde Elettromagnetiche (Troyer) for fingerprinting paint pigments back to their geological sources.

The technique is called electron paramagnetic resonance spectroscopy (EPR), and involves exposing minute pigment samples to a magnetic field in order to isolate their unique combinations of free radical impurities. It was through his research in linking radicals to their mine sources that Dr Troup saw the potential for art.

“Suddenly realised that the majority of paint pigments were minerals ... I got some samples, and you ... each had its own particular (bell-shaped) signal. It is precisely because the pigments are coloured that the signals are so strong.”

Dr Troup and his team have so far identified more than 40 pigments and their corresponding sources. Lapis lazuli (used for making blue hues in Renaissance art) from Greenland, for instance, demonstrates a quite different pattern of impurities to samples of the same gems from Afghanistan or Chile. But most significantly, naturally occurring minerals can also be clearly identified from synthetic versions.

The long-term impact of this work on uncovering the history and composition of artworks cannot be underestimated. Dr Troup has already assisted Aboriginal art researchers with his ability to easily distinguish north Australian yellow ochre from its international counterpart.
Democracy in the Pacific: not a one-size-fits-all affair

Recent coups in Fiji and the Solomon Islands have highlighted an Australian Government Pacific policy characterised by knee-jerk responses and quick-fix measures. Regional peace and security will be achieved only if the indigenous view is heard in its totality, says Dr Robert Wolfgramm.

In case anyone doubts it, the failure of the Howard Government to respond effectively to Aboriginal reconciliation, to the Solomon crisis, and to the Fijian coup highlights the fact that this government, and perhaps John Howard himself, has a deep and abiding diplomacy problem with the indigenous Pacific - a problem that is manifest as either sustained inaction (eg no Aboriginal apology, no support for the Solomons); delayed action (Belated East Timor support and only after bloodshed and a universal outcry); or inappropriate reaction (food and pompously proposed Fijian sanctions).

The Howard Government appears to be both puzzled by the indigenous Pacific on one hand and inordinately presumptuous of it on the other. We were surprised by the Fijian coup, said Alexander Downer; and then he spoke as if he knew what the situation really was.

... the Australian response to the Pacific is unable to bend... to indigenous needs ...

The utmost that this government seems to regard the indigenous Pacific as either a nuisance problem (which will go away if ignored) or as an endemic problem (which will never go away so there's no point in doing anything substantial about it). Lacking an adroitness of perspective and breadth of consideration, the Australian Government consequently lacks an adequate response when crises such as Fiji and the Solomons erupt.

One dimension of Australia's problem is policy myopia. Our over-arching orientation to achieving regional stabil-

ity and security at all costs - or, as cheaply as can be done - thereby commits the government to glossing over substantive Pacific problems which lie at the heart of long-term solutions. Opportunities to formulate real policy initiatives are therefore lost because the lack of in-depth analysis means no-one recognises the need for them - that is, policy continues to be conceived and spelled out in terms of knee-jerk responses and quick-fix measures.

If democracy is to flourish in the South Pacific, it must begin among teachers and church and community leaders committed to nurturing it.

The second, more serious problem with Australia's Pacific policy is that it is teleological. Like a punch-drunk boxer, the government, in the words of Paul Simon, 'hears only what (it) wants to hear and disregards the rest' ('The Boxer', 1968).

In the Pacific, this is easy: it means doing the 'cocktail circuit' counts for intelligence-gathering. Local elites are invited along and over drinks are allowed to be plumed for as assessments. These information exchanges are weighted favourably. That elite viewpoints represent a distortion of the indigenous view is played down. After all, surely the educated must know what is going on!

The consequence of this head-to-head diplomacy is that the Australian response to the Pacific becomes predictable and reactionary. And worse, it is mechanistic, narrow and calculated, unable to bend to indigenous needs and unable to gauge the concerns of those outside the official line.

If democracy is to flourish with vigour in the South Pacific, it has to begin in village schools among teachers and church and community leaders committed to nurturing it. If democracy has a place in Pacific soil, if it isn't just another piece of fossil and jetson floating in from the West, then it will require an Australian effort every bit as hardy and persistent as that which first brought europe and cane to the islands.

Two matters must be kept in mind.

First, Howard and Downer must not impose a one-size-fits-all strain of democracy which is unadjusted to the variability of political climate, history and ethnic composition of the different islands.

Second, achieving harmonious domestic relations and regional peace and security will be possible only if the indigenous view is heard in its totality.

Artwork by Elizabeth Dias.
**ARTS SCENE**

Monash News July 2000

Monash shows its metal in London

Monash University was well represented at a leading Australian silversmiths at the Victoria and Albert Museum in London last month.

Opened by the Victorian Premier Mr Steve Bracks, the exhibition included the work of two Monash lecturing staff, Marian Hosking and Wayne Guest, and Monash graduate Colin Millard.

In the same week, Australia's Deputy Prime Minister, Mr John Anderson, opened the Australia 2000 exhibition at London's Lesley Cranm Gallery. Australia 2000 showcased works by 20 silversmiths and jewellers from around Australia, including a group of silver brooches with a botanical reference by Ms Hosking, coordinator of metals and jewellery in Monash's Faculty of Art and Design.

International craft prize for graduate

Monash graduate has been honoured with a European craft and design award.

Adelaide-based Alissa Dewhurst, who graduated with a Bachelor of Arts (Craft and Design) from Monash Peninsula, was one of six young designers awarded the Talente Prize by an international jury in Munich.

"It's a great honour to be selected from among more than 100 entrants from 25 countries," she said. "The stated goal of Talente is to present works of particularly gifted young artists and individuals, which must reflect an intensive grappling with both formal and technical problems and present something unique, surprising and unusual."

The winning craftsman came from Dewhurst's first solo exhibition, New Ami, exhibited at the Fabrikturn Gutb in Adelaide last year.

**Flying under the influence?**

Ever feel you've been watching? Or wonder why your car keys mysteriously disappear overnight?

For Astrid, Beth, Celeste and Max, life is already confusing enough without the arrival of a pair of hard-drinking, apprentice fairies in the household. The hun and chaos that ensues is a mixture of poetry, music, film and on-stages action.

Flying Under the Influence is a colourful, fast-moving and humorous play about the unexpected things that can happen when you're young and silly. It's on at the Student Theatre on (03) 9905 3108.

Students ponder the passage of time

A new exhibition at Monash Caulfield explores the relationship between photography and time.

Pia is, coordinated by lecturer Danielle Thompson, consists of mainly work colour by third-year photography students. The exhibition offers some highly personal interpretations of time, ranging from the domestication of a house, old and new cut films and someone's boots discarded on a seat in a laundered.

Pia is on from 13 to 28 July in the Link Space at the end of Building A.

**Sculpture research in public show**

Sculpture research projects by Monash honours, masters and doctoral students were on display at Yarra Sculpture Gallery in Abbotsford last month.

The Yarra Sculpture Gallery showed works by students who graduated from the Faculty of Art and Design. As part of the program, students worked on a public show and a research project.

Curator Dr Dan Wollmering, a senior lecturer in sculpture, said the public often only got to experience the final results of a research project. "We're trying to do in promote and display our candidates' research activities and results throughout all stages of studio production," he said.

**Singers to perform at two campuses**

Vive Vee and the Monash Women's Choir madrigal groups will perform at two Monash campuses later this month.

Conducted by Andre de Guilleux and Vivien Hamilton, they will sing a selection of best-loved works, including Afro-American spirituals and Australian composer Stephen Leck's 'Morningside'.

The performances will be held in the Gallery of the Art and Design Faculty at Caulfield on 26 July and in Cassar Hall on Monash Parkville on 28 July.

**Giving voice to male angst**

Male angst is a topic guaranteed to provoke heated debate. On the one side are those who argue that men have had it good for so long they shouldn't complain. On the other are people such as sculptor Jon Eiseman, whose masters by research exhibition Meenal, at Monash's Caulfield campus in early July, explores themes of isolation and alienation he sees as symptomatic of men's social displacement.

"I'd been reading about male angst for a couple of years, and from that started to see common threads," he explained. "Then it was a matter of translating those themes into sculptural works." Isolation and dislocation are evident in Eiseman's often quirky approach. A series of marching men, and another of men waving semaphore flags, are attempts to convey men's unwillingness to communicate with each other beyond ritualistic levels. "Pumpkin Man" was inspired by a trip to the market and articles about masculine insecurities on the subject of penis enlargement operations. A sculpture sculptor in Monash's Faculty of Art and Design, Eiseman said he hoped his work would appeal to women as well.

"It's been a pretty loaded debate," he said. "I think the hardline attitudes - that men are the enemy - are soften. Yes, guys have their problems as well." What: Meenal Where: Early July Where: The Faculty Gallery, Monash University's Caulfield campus Who: For more details, contact gallery manager Malcolm Bayssey on (03) 9901 2882.

**US honour for Monash potter**

Pottery Technology has been reprinted numerous times since its publication in 1980, and in 20 years later still sells as many copies as it did when first released. It was a book that summarised everything I had learnt in the previous 10 years," comments the author.

Although he enjoyed a distinguished archaeological career, Dr Rye maintains that he entered the field "accidentally", when the German engineer Hans Wulff was seeking a ceramicist to accompany him to Pakistan for a study of traditional crafts.

Dr Rye was postdoctoral fellow at the Smithsonian Institution in 1971, and became prominent in the style of 'ethnicographic recording' popular at the time. With his intimate knowledge of pottery production, Dr Rye offered archaeologists an invaluable insight into the recording processes of the past by carefully studying traditional potting as it was then being practised in existing communities. Although archaeologists use pottery as an important tool for understanding past cultures, rarely are they directly involved in its manufacture. But as his archaeological career became more and more involved in statistics and less and less with the pottery he loved, Dr Rye sought a move.

"I longed to return to my original interest, which was making ceramics as an artist," he says.

**Monash students show their talents**

The creative talents of Monash University's Gippsland students will be showcased at a major exhibition in Melbourne this month.

Gippsland Centre for Art and Design, Selected Works brings together up to 40 works by undergraduate and postgraduate students of sculpture, painting and photography.

The exhibition will run at the Gippsland Centre for Art and Design Gallery at Monash's Caulfield campus from 13 to 28 July before moving to the Switchback Gallery at Monash Gippsland from 1 to 10 August.

Gippsland centre head Julie Adams said the show was a fantastic opportunity for an exchange of ideas and experiences between city and country.

"It will allow the students to see their work with new eyes, to take it out of its usual visual context," she said. "It's also valuable experience for them if they're planning to exhibit in the metropolitan area in the future."

What: Gippsland Centre for Art and Design, Selected Works Where: Late July until mid-August Where: The Faculty Gallery, Monash Caulfield; Gippsland Centre for Art and Design, Monash Gippsland

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KAREN MEEHAN

The Monash Gippsland Centre for Art and Design holds many treasures - and not all of them static objects. Pottery Technology in Ceramic Studies 'for his distinctive work in ceramic technology that has influenced an entire generation of American archaeologists'.

Although he has not worked in archaeology since 1980, Dr Rye's ethnographic studies of traditional pottery manufacture in Pakistan, Israel and New Guinea led to his creation of what has become effectively 'the ceramic bible'.

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By Karen Meehan

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KAREN MEEHAN

The Monash Gippsland Centre for Art and Design holds many treasures - and not all of them static objects.

Take Dr Owen Rye, for instance. A potter turned archaeologist turned teacher, he now draws students from across the globe to learn the complex art of wood-fired ceramics.

Dr Rye recently became the first non-US citizen to win the Society for American Archaeology's Award for Excellence in Ceramic Studies "for his distinguished work in ceramic technology that has influenced an entire generation of American archaeologists'.

Although he has not worked in archaeology since 1980, Dr Rye's ethnographic studies of traditional pottery manufacture in Pakistan, Israel and New Guinea led to his creation of what has become effectively 'the ceramic bible'.
Married Muslim Christian couples seem to be the most rejected minority on the West Bank – more than any other minority according to a recent study.

Dr Ata observed the trend while teaching on intermarriage between Christians and Muslims. During his two years in Jerusalem, he surveyed 130 couples in such marriages from the West Bank's main centres, Jerusalem, Bethlehem and Ramallah.

According to Dr Ata, the trend of inter-marriage between Muslims and Christians seems to have emerged from the complex political, economic and cultural environment of the West Bank. "Christian males are leaving the West Bank at a rate five times greater than that of Muslim males. As well, travel between the three main centres is so restricted that it is almost impossible for Muslim relatives to arrange meetings between potential marriage partners," he said.

It is an extremely difficult choice – either marry someone from outside your religion or remain single, which is not desirable."

Dr Ata's findings reveal the complexities and stresses of everyday life in inter-religious marriages. For example, which religion will the children follow, which group does the family identity with – Muslim, Christian, Arab or Palestinian, and will the marriage ever be accepted by society?

He also found that inter-religious couples, most of which consisted of Muslim husbands and Christian wives, were isolated from their communities. Those marriages comprising Muslim wives and Christian husbands, a rare occurrence, were even more reclusive. "Where do these people belong in society?" asks Dr Ata. "These couples seem to be rejected more than any other minority around. You have to admire them in a way."

Dr Ata's interest in inter-religious issues stems from his upbringing in Bethlehem. His mother was a Palestinian Christian and his father a Lebanese Christian whose family had converted to Christianity two centuries earlier.

It was a childhood spent very much growing up as a member of a minority within a minority. His father was seen as an intruder in the Palestinian community, his family was Christian within the Muslim majority, and there was the feeling of being a minority within the Jewish state.

"It is an inter-marriage of the disciplines of social psychology and Middle Eastern sociology that has me constantly dabbling in inter-religious issues," he said.

Book reveals complexities of inter-religious marriages

BY PETRA KONALSKY

Concept car to visit Monash

Australia's first concept car, a promotional project involving government, designers and the local automotive industry, will be at Monash University in late July.

Launched three years ago, the xccess australia car was developed by 130 component companies to showcase their abilities to the world's leading carmakers. Suppliers involved with the project earned more than $700 million in contracts as a direct result of the global marketing campaign.

The success of the first project has spurred work on a second environmentally friendly concept vehicle. The concept car will be on show in the Faculty of Art and Design building at Monash's Caulfield campus on 20 and 21 July as part of the Design Institute of Australia's Forum lecture series.

It will return to Monash campuses in early August for Monash Open Day.

Concerts celebrate genius of Bach

Monash University will reverberate with the soaring sounds of Bach later this month at a concert series commemorating the 250th anniversary of his death.

The series will open at 8.45 pm on 26 July with a special performance of Bach's Mass in B minor at St Patrick's Cathedral in Melbourne. The date and starting time of the performance mark the exact time of Johann Sebastian Bach's death 250 years ago.

Another seven concerts will be staged at the Robert Blackwood Concert Hall on Monash's Clayton campus on 29 and 30 July.

The seven Monash concerts each have their own focus: Sacred Bach, Brandenburg Concertos, Magnificat and the Brandenburg Concertos 6, 4 and 1, plus Accademia Coralia on 30 July.

What: Bach 250th Commemoration Where: 26 to 30 July Where: St Patrick's Cathedral, Melbourne; Robert Blackwood Concert Hall, Monash University (Clayton)

For bookings, call the Monash Box Office on (03) 9905 1111.
New technique shows origin of Earth's metals

By CORY NASSAU

Researchers at Monash University's Australian Crustal Research Centre have made a discovery that could have important implications for pinpointing the location of large deposits of metals. While the Earth's crust had previously been thought to be the source of most metals, new findings suggest that they originate much deeper - in the mantle.

A new geodynamic tracing technique has shown that the metal in many ore deposits is brought to the surface during volcanic events, caused by the collision of large pieces of the Earth's crust.

Dr Jannene McBride, a researcher fellow with the centre, has played an integral part in the research, which has been a collaborative effort between Monash and the CSIRO.

"We are trying to understand where the metals in large metal ore deposits come from and why they form large deposits," she said.

"According to Dr McBride, the formation of volcanic chains above subduction zones is directly related to the movement of fluids released from the subducting oceanic crust as it breaks up. Often, large deposits of metals are found in parts of these volcanic chains."

Research offers hope for our damaged wetlands

By JOSIE GIBSON

A major research project by Monash and Victoria universities has pinpointed the causes of toxic algal blooms that periodically devastate Australian wetlands.

Scientists blame excessive levels of nutrients, such as nitrogen and phosphorus for fueling rapid surface growth of algae, enabling them to dominate and kill off the aquatic plants below. The nutrients arrive in a variety of forms - as fertiliser, feedlot or dairy farm runoff and stormwater from urban areas.

The findings have major implications for managing Australia's dwindling number of native wetlands and watercourses used for farming, industry and recreation.

The research is being carried out by Dr Paul Bailey from Monash's Biological Sciences department, Dr Paul Boon from the Life Sciences school at Victoria University, and Monash colleagues Dr Kay Morris and Ms Lisa Hughes. The three-year project has been funded by the National Wetlands Research and Development Program of Environment Australia and the Federal Government's Land and Water Resources Research Development Corporation.

"Algae are very efficient at blanketting the water and virtually suffocating everything below them - they're very competitive," Dr Bailey said.

To test their hypotheses, the researchers built isolated pools in a wetland in Shepparton in central Victoria and subjected them to various treatments: low, moderate and high amounts of nutrients; removal of aquatic plants; and no treatment at all. Impacts on aquatic plants and algae were closely monitored.

Wetlands destroyed by algal blooms are easy to spot - unattractive lakes or streams blanketed by dense mats of algae choking everything beneath. Water plants die and the water quickly becomes muddied as banks erode.

Massive algal blooms have practical as well as ecological and aesthetic consequences. Last summer, for example, a national triathlon event near Shepparton had to be cancelled because of a major bloom on Kialla Lakes.

As the project continues, Dr Bailey and his colleagues have been explaining their findings to resource managers at workshops around Victoria.

"Managers require tools so they can manage these wetlands better," he said. "We're providing them with knowledge and solutions to some of these problems."

The final stage of the project will focus on finding ways to successfully rehabilitate degraded wetlands.